DUPONT

NO CBI

December 2, 1994

Certified Mail
Return Receipt Requested

Document Processing Center (TS-790)
Attention: 8(e) Coordinator
Office of Pollution Prevention and Toxics
U. S. Environmental Protection Agency
401 M Street SW
Washington, D.C. 20460

Contains No CBI

Dear Sir/ Madam:

2-Amino-6-hydroxy-4(1H)-pyrimidine
(CASRN 56-09-7)

We have recently reviewed four employee allegations made during the 1990-1994 period that allege an acute adverse respiratory effect from exposure to 2-Amino-6-hydroxy-4(1H)-pyrimidine dust ("pyrimidine"). While the workers did not exhibit common symptoms and the contemporaneous medical diagnoses differ, at this time, we believe that the alleged effects, taken as a whole, sufficiently "implicate" this chemical to warrant this notice.

DuPont currently purchases this pyrimidine from Huls America ("Huls") for use as a pesticide intermediate at its Belle, West Virginia site. DuPont receives the product from Huls in 50 kg fiber pack drums with plastic liners and in 25 kg plastic bags. At the location of use, this intermediate is manually removed from the containers and charged to the reactor. During a production campaign, eight to ten individuals may handle the pyrimidine either during reactor charge or during removal of the plastic drum liners and drum decontamination (water rinse) prior to container disposal.

DuPont has established an internal Acceptable Exposure Limit ("AEL") and the site controls the workplace exposure to this pyrimidine to 10 mg/m3 (8 hr. TWA, total dust). Operators working in the area where this material is used are monitored for exposure using a personal air sampling device fitted with a dust cassette to collect

12/30/94

any airborne pyrimidine dust. Workplace procedures dictate that operators wear safety glasses, chemical goggles (when dust is present), coveralls, and gloves. In addition, the area instituted an organic vapor/dust cartridge full face respirator requirement in 1992. This pyrimidine is not a skin irritant and is not a sensitizer in animals (negative in a local lymph node assay and a skin sensitization test in guinea pigs). A copy of the internal DuPont Material Safety Data Sheet (internal codes redacted) is attached.

Since 1990, we have received allegations from four workers involved in the reactor charging operation with this pyrimidine and in the disposal of the liners and drums. They have complained of and were treated for respiratory symptoms (intermittent bronchitis-like and asthma-like symptoms) which, at the time of onset, were not diagnosed as being associated with exposure to the workplace concentrations of this pyrimidine.

To further assess the potential of this material to cause a respiratory tract effects, we are assessing the need for additional toxicity studies. In addition, we are requesting that Huls provide us with any information it may have regarding possible human reactions from exposure to this pyrimidine.

We will keep the Agency advised of the results these actions.

Sincerely,

Mark H. Christman
Legal D-8078-1
E.I. du Pont de Nemours and Co.
1007 Market Street
Wilmington, DE 19898

Revised 10-NOV-1993 Printed 23-SEP-1994

Business and Sites

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

CAS Number	: 56-09-7
Formula	: C4H5N302
Molecular Weight	: 127.10
CAS Name	: 2-Amino-6-hydroxy-4(1H)-pyrimidine

Tradenames and Synonyms

2-Amino-4,6-dihydroxypyrimidine

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont
901 W. DuPont Avenue
Belle, WV 25015

PHONE NUMBERS

Product Information	: 1-304-357-1000
Transport Emergency	: CHEMTREC: 1-800-424-9300
Medical Emergency	: 1-800-441-3637

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
	56-09-7	100

HAZARDS IDENTIFICATION

Potential Health Effects

Oral LD50: > 11,000 mg/kg in rats
Inhalation 4 hour ALC: >5.2 mg/L in rats

The compound is not a skin irritant, is a slight eye irritant, and is not a skin sensitizer in animals. The effects in animals from exposures by inhalation, ingestion, or skin contact have not been determined.

No animal test reports are available to define carcinogenic, developmental, or reproductive hazards. does not produce genetic damage in bacterial cell cultures but has not been tested in animals.

HUMAN HEALTH EFFECTS

Eye contact may cause eye irritation with discomfort, tearing, or blurring of vision.

No additional information is available to confidently predict the effects of excessive human exposure to this compound. Handling and use of this material may present additional hazards.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

First Aid

INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

(FIRST AID MEASURES - Continued)

Flush skin with water after contact. Wash contaminated clothing before reuse.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION

If swallowed, immediately give 2 glasses of water and induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

FIRE FIGHTING MEASURES

Flammable Properties

Explosivity testing conducted on samples of indicated the compound was not explosive. The highest dust concentration tested was 1.54 g/L.

Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Clean Up

Shovel or sweep up.

Accidental Release Measures

Avoid dust generation.

HANDLING AND STORAGE

Handling (Personnel)

Avoid breathing dust. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling. Wash clothing after use.

Handling (Physical Aspects)

Avoid dust generation.

Storage

Do not mix with strong oxidizers or reducing agents. Keep container tightly closed. Do not store with oxidizing and reducing agents.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation. Keep container tightly closed.

Personal Protective Equipment

Eye/Face	: Safety Glasses. Coverall chemical goggles when dust is present.
Respirator	: If dusty conditions exist, use approved respirator.

Protective Gloves: Dust resistant gloves such as rubber, leather or vinyl impregnated.

Exposure Guidelines

Exposure Limits

PEL (OSHA)	: Particulates (Not Otherwise Regulated) 15 mg/m3, 8 Hr. TWA, total dust 5 mg/m3, 8 Hr. TWA, respirable dust
TLV (ACGIH)	: None Established
AEL * (Du Pont)	: 10 mg/m3, 8 Hr. TWA, total dust

* AEL is Du Pont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Melting Point	: >300 C (>572 F)
Solubility in Water	: Insoluble
Odor	: None
Form	: Solid
Color	: White

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

Incompatible with oxidizing and reducing agents.

Polymerization

Polymerization will not occur.

ECOLOGICAL INFORMATION

Ecotoxicological Information

Aquatic Toxicity

No information available.

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

REGULATORY INFORMATION

U.S. Federal Regulations

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute	: Yes
Chronic	: No
Fire	: No
Reactivity	: No
Pressure	: No

OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating

Health	: 1
Flammability	: 1
Reactivity	: 0

Personal Protection rating to be supplied by user depending on use conditions.

Additional Information

Haskell Laboratory Toxicity Hazard Information Summary for 2-amino-4,6-dihydroxypyrimidine.

Latest MSDS revision date: 93/09/08.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS	: SSS Process Supervisor
Address	: DuPont 901 W. DuPont Avenue Belle, WV 25015
Telephone	: 304-357-1710

# Indicates updated section.

End of MSDS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Mark H. Christman
Counsel
E. I. Du Pont De Nemours and Company
Legal D-7010-1
1007 Market Street
Wilmington, Delaware 19898

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

FEB 13 1995

EPA acknowledges the receipt of information submitted by your organization under Section 8(e) of the Toxic Substances Control Act (TSCA). For your reference, copies of the first page(s) of your submission(s) are enclosed and display the TSCA §8(e) Document Control Number (e.g., 8EHQ-00-0000) assigned by EPA to your submission(s). Please cite the assigned 8(e) number when submitting follow-up or supplemental information and **refer to the reverse side of this page for "EPA Information Requests"** .

All TSCA 8(e) submissions are placed in the public files unless confidentiality is claimed according to the procedures outlined in Part X of EPA's TSCA §8(e) policy statement (43 FR 11110, March 16, 1978). Confidential submissions received pursuant to the TSCA §8(e) Compliance Audit Program (CAP) should already contain information supporting confidentiality claims. This information is required and should be submitted if not done so previously. To substantiate claims, submit responses to the questions in the enclosure "Support Information for Confidentiality Claims". This same enclosure is used to support confidentiality claims for non-CAP submissions.

Please address any further correspondence with the Agency related to this TSCA 8(e) submission to:

Document Processing Center (7407)
Attn: TSCA Section 8(e) Coordinator
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
Washington, D.C. 20460-0001

EPA looks forward to continued cooperation with your organization in its ongoing efforts to evaluate and manage potential risks posed by chemicals to health and the environment.

Sincerely,

Terry R. O'Bryan

Terry R. O'Bryan
Risk Analysis Branch

Enclosure 13271A

EPA INFORMATION REQUESTS

Document ID: 8EHQ-94-13271

EPA requests:

1. [ ] No additional information at this time.

2. [ ] Additional information or clarification on

3. [ ] A full copy of the final report (including the actual experimental protocol, applicable results of gross or histopathologic examinations, data, results of any statistical analyses, etc.) from each study mentioned in your submission.

4. [ ] A description of all voluntary actions taken by your company in response to the findings indicated in your submission.

5. [ ] A complete copy of the current and/or revised Material Safety Data Sheets and labels for the following chemical(s) listed in your submission:

_____ _____

_____ _____

_____ _____

6. [✓] any information you obtain as a follow-up ~~to~~ in your effort to assess this compound – additional testing you decide to conduct or further information about reactions in employees

Please direct questions regarding these requests to Mr. Terry O'Bryan (202-260-3483) or Mr. John Myers (202-260-3543) of the OPPT Risk Analysis Branch.

Triage of 8(e) Submissions

Date sent to triage: MAR 0 8 1995

(NON-CAP) CAP

Submission number: 13271 A

TSCA Inventory: (Y) N D

Study type (circle appropriate):

Group 1 - Dick Clements (1 copy total)

ECO AQUATO

Group 2 - Ernie Falke (1 copy total)

(ATOX) SBTOX (SEN) w/NEUR

Group 3 - Elizabeth Margosches (1 copy each)

STOX CTOX (EPI) RTOX GTOX

STOX/ONCO CTOX/ONCO IMMUNO CYTO NEUR

Other (FATE, EXPO, MET, etc.): _____

Notes:

THIS IS THE ORIGINAL 8(e) SUBMISSION; PLEASE REFILE AFTER TRIAGE DATABASE ENTRY

For Contractor Use Only

entire document: 0 (1) 2 **pages** — **pages** 1

Notes:

Contractor reviewer : LPS (by PAM) **Date:** 1/25/95

CECATS\TRIAGE TRACKING DBASE ENTRY FORM

CECATS DATA:
Submission # 8EHQ-1294-13271 SEQ. A

TYPE: (INT.) SUPP FLWP

SUBMITTER NAME: Dupont Central Research and Development

SUB. DATE: 12/02/94 OTS DATE: 12/07/94 CSRAD DATE: 12/30/94

INFORMATION REQUESTED: FLWP DATE:
0501 NO INFO REQUESTED
0502 INFO REQUESTED (TECH)
0503 INFO REQUESTED (VOL ACTIONS)
0504 INFO REQUESTED (REPORTING RATIONALE)

DISPOSITION:
(0639) REFER TO CHEMICAL SCREENING
0678 CAP NOTICE

VOLUNTARY ACTIONS:
(0401) NO ACTION REPORTED
0402 STUDIES PLANNED/UNDERWAY
0403 NOTIFICATION OF WORKER RESIDUES
0404 LABEL/MSDS CHANGES
0405 PROCESS/HANDLING CHANGES
0406 APP/USE DISCONTINUED
0407 PRODUCTION DISCONTINUED
0408 CONFIDENTIAL

CHEMICAL NAME:

CAS#
56-09-7

INFORMATION TYPE:		P F C
0201	ONCO (HUMAN)	01 02 04
0202	ONCO (ANIMAL)	01 02 04
0203	CELL TRANS (IN VITRO)	01 02 04
0204	MUTA (IN VITRO)	01 02 04
0205	MUTA (IN VIVO)	01 02 04
0206	REPRO/TERATO (HUMAN)	01 02 04
0207	REPRO/TERATO (ANIMAL)	01 02 04
0208	NEURO (HUMAN)	01 02 04
0209	NEURO (ANIMAL)	01 02 04
(0210)	ACUTE TOX. (HUMAN)	(01) 02 04
0211	CHR. TOX. (HUMAN)	01 02 04
0212	ACUTE TOX. (ANIMAL)	01 02 04
0213	SUB ACUTE TOX (ANIMAL)	01 02 04
0214	SUB CHRONIC TOX (ANIMAL)	01 02 04
0215	CHRONIC TOX (ANIMAL)	01 02 04

INFORMATION TYPE:		P F C
0216	EPI/CLIN	01 02 04
0217	HUMAN EXPOS (PROD CONTAM)	01 02 04
0218	HUMAN EXPOS (ACCIDENTAL)	01 02 04
(0219)	HUMAN EXPOS (MONITORING)	(01) 02 04
0220	ECO/AQUA TOX	01 02 04
0221	ENV. OCCC/REL/FATE	01 02 04
0222	EMER INCI OF ENV CONTAM	01 02 04
0223	RESPONSE REQEST DELAY	01 02 04
0224	PROD/COMP/CHEM ID	01 02 04
0225	REPORTING RATIONALE	01 02 04
0226	CONFIDENTIAL	01 02 04
0227	ALLERG (HUMAN)	01 02 04
0228	ALLERG (ANIMAL)	01 02 04
0239	METAB/PHARMACO (ANIMAL)	01 02 04
0240	METAB/PHARMACO (HUMAN)	01 02 04

INFORMATION TYPE:		P F C
0241	IMMUNO (ANIMAL)	01 02 04
0242	IMMUNO (HUMAN)	01 02 04
(0243)	CHEM/PHYS PROP	01 02 04
0244	CLASTO (IN VITRO)	01 02 04
0245	CLASTO (ANIMAL)	01 02 04
0246	CLASTO (HUMAN)	01 02 04
0247	DNA DAM/REPAIR	01 02 04
(0248)	PROD/USE/PROC	01 02 04
(0251)	MSDS	01 02 04
0299	OTHER	01 02 04

Atox/Sen

TRIAGE DATA:

NON-CBI INVENTORY
(YES)
CAS SR
NO
(IN INVENTORY)
(UNKNOWN) Non-CAP

ONGOING REVIEW
YES (DROP/REFER)
NO (CONTINUE)
REFER

SPECIES
HMN

TOXICOLOGICAL CONCERN:
(LOW)
MED
HIGH

USE: Pesticide intermediate

PRODUCTION:

-CPSS- 1005950831

0 0 0 0 0 0 0 0 0 0 0

> <ID NUMBER>
8(e)-13271A

> <TOX CONCERN>
L

> <COMMENT>
DATA OBTAINED FROM THE TEST MATERIAL MSDS. ACUTE ORAL TOXICITY IS LOW CONCERN WITH AN LD50 > 11,000 MG/KG IN RATS.

ACUTE INHALATION TOXICITY IN RATS IS LOW CONCERN WITH AN ALC OF > 5.2 MG/L.

THE MSDS STATED THE COMPOUND IS NOT A SKIN IRRITANT, IS A SLIGHT EYE IRRITANT, AND IS NOT A SKIN SENSITIZER IN ANIMALS.

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EQMS Ratings on 8(E) Submissions--Non-CAP Set 16--July 25, 1995

8E Number and Chemical Name	Rank	Reason or Brief Description
-13269 Substituted azo triazine (generic identifier used to protect specific chemical identity)	High	A chemical operator in the company's plant experienced apparent pulmonary allergic reactions requiring oxygen therapy on 4 occasions within 6 months. Each episode coincided with the presence in the plant of the subject reactive dye used in dying cellulosic fibers. Reporting in 1994 the company intends to put information about the asthma-like inducing property (a significant adverse health effect) of the dye on future MSDS notifications. The substance was a PMN in 1989 [but it is unclear whether the company knew of the possible hazard during the PMN application process.]
- 13271 2-Amino-6-hydroxy-4(1 H)-pyrimidine dust, CASRN 56-09-7	High	The chemical company's purchased intermediate is reported to induce acute respiratory effects, which are described as intermittent bronchitis-like and asthma-like symptoms, based on 4 reports 1990-1994.
- 13281 Metal working coolant, Resco Tuf PBNF	High	A large capital-goods and machine-tool-manufacturer reported (1994) observing an increasing number of its employees have experienced reactions consistent with allergic dermal sensitization following exposure to the coolant.

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